

## ☿1;OIntroduction

WICE-M1 is a ROM emulator that claim time&space saving, portable, download speedy and stable. It can plug in IC socket, eliminate the noise made from cable, also provide Printer Port DOS and Windows 3.1/95 operating software.

## ☿°;ODevice Simulation

2716,2732,2764,27128,27256,27512,27010

## ☿»;OStandard Accessories

- ¡E WICE-M1 mainframe¡Ñ1
- ¡E 25 pins to 8 pins D type adapter¡Ñ1
- ¡E 8 pins cable¡Ñ1
- ¡E Operating floppy disk¡Ñ1
- ¡E User's manual ¡Ñ1
- ¡E DC 6V/250mA adapter¡Ñ1
- ¡E Reset Signal Line ¡Ñ1

## ☿¼;OHost Computer Requirements

- ¡E IBM PC or compatible computer (above 386)
- ¡E MS-DOS VER 3.0 (or above); Windows 3.1/95

## ☿½;OInstallation

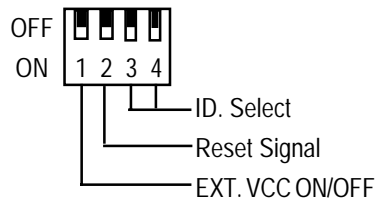
1. Please check that if you have all accessories as☿»list.
2. Adjust ID , Please refer to☿¿.
3. Plug 25-pin to 8-pin D type adapter in Printer Port.

4. Connect 8-pin cable
5. Turn the power on
6. If you are under DOS, please install it under WICE-M1. If you are under Windows, please install it under WICE-M1W.
7. Run the software

### Hardware Specifications

1. Transmit by Printer Port
2. One Printer Port can control four WICE-M1. Set numbers by each switches on WICE-M1.
3. Simulate 2716(2K $\times$ 8)-27010(128K $\times$ 8)
4. Simulating speed :SRAM Access Time+0nS<=20nS
5. Reset signal output cable can reset simulated circuit
6. Reverse protection
7. You can use Adapter or Target board power.

### Set WICE-M1 Switch



#### a. EXT VCC ON/OFF

When it simulate 28-pin IC(like 27512/27256/27128), if it is ON and you can use external power (no need to connect

adapter). If it is OFF and then you need connect adapter to provide power to WICE-M1.

b. RESET SIGNAL

WICE-M1 will send Reset signal to reset simulated circuit when the data transmit to it. This switch is for setting Hi level or Low level.

ON :reset signal is Low

OFF :reset signal is Hi

c. ID. Select

Set the current ID of WICE-M1.

SW \ ID	A	B	C	D
4	OFF	ON	OFF	ON
3	OFF	OFF	ON	ON

## Appendix A: DOS Operation Introduction

### 1. Path File Operation under DOS

W-M1[d:][path]file name[/type][#ID][EVEN][ODD]  
[LPTn][Nn][Snnn]

(1) [d:][path]file name: the files which users need to be simulated, include set the disk number/path/file name/accessory file name.

(2) [/type]: assign the name of device

[/16] or [/2716]= 2K<sub>i</sub>×8 bits

[/32] or [/2737]= 4K<sub>i</sub>×8 bits

[/64] or [/2764]= 8K<sub>i</sub>×8 bits

[/128] or [/27128]= 16K<sub>i</sub>×8 bits

[/256] or [/27256]= 32K<sub>i</sub>×8 bits

[/512] or [/27512]= 64K<sub>i</sub>×8 bits

[/010] or [/27010]= 128K<sub>i</sub>×8 bits

(3) [/EXE]: sub-filename is EXE.

(4) [/#ID]: assign the emulator. The WICE-M1 can connect four Printer Port at the same time, you can switch on the mainframe.

[/#A]=WICE-#A

[/#B]=WICE-#B

[/#C]=WICE-#C

[/#D]=WICE-#D

(5) [/EVEN]: set the data of even position loaded

(6) [/ODD]: set the data of odd position loaded

(7) [/LPTn]: select the number of Printer Port, n might be 1-4. If you do not want to set this parameter, it will automatically set to "1" which is at 3BCH.

(8) [/Snnn]: select the beginning position of loaded files.

[/BELL]:it will remind you by "bi\\"" when file download.

(9) [W-M1/?]: mention that the way to set parameter.

```

MS-DOS 模式
W-M1 /? 1 or /H 1 Display option command and documentation.
W-M1 [/path]/filename [/type] [/size] [/ID] [/EVEN/ODD] [/LPTn] [/Snnn]
1: Source disk drive path and file name.
2: /type Set emulation EPROM type number.
   /131 or /27131 - 5K x 8bits. /1312 or /27512 - 64K x 8bits.
   /132 or /27521 - 4K x 8bits. /1010 or /27010 - 128K x 8bits.
   /134 or /27641 - 8K x 8bits.
   /1328 or /27128 - 16K x 8bits.
   /2561 or /272561 - 528K x 8bits.
3: /EXE Set download file - EXE mode.
   System define binary or machine code file.
4: /#ID Set WICE-M1 ID. /#C - WICE-M1 4C
   /#B - WICE-M1 4B. /#D - WICE-M1 4D
   /#A - WICE-M1 4A.
   Each unit is selected by the switch.
5: /EVEN Set download 16bit even byte data to WICE-M1.
6: /ODD Set download 16bit odd byte data to WICE-M1.
7: /LPTn Select the parallel port from LPT1 - LPT4.
   The first port will be selected if this parameter is omitted.
   The first port address is 3BCH usually.
7: /Snnn Download source file start offset address(decimal)
   /BELL B allow that download data function is finished.
WICE-M1
  
```

## 2. Window Operation under DOS

Key in WICE-M1 under this path and get into main chart.



### (1) Type[T]

- Set emulator type: press [ENTER] on Type, select which WICE-M1 you want to connect with, (you need to adjust Switch)[for example, select the first one then press ENTER on WICE-#A.]Then select EPROM type, the picture is like following chart.



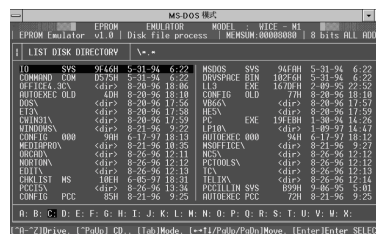
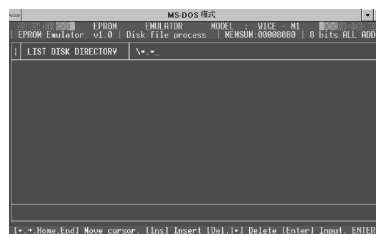
### (2) Download[W]

- Move data block to WICE[M]: download the buffer data from '0000' position to WICE-M1.
- Move any block to WICE[CTRL][M]: user can download the starting position to the buffer.

### (3) Disk

Press ENTER in DISK selection.

- a. List disk directory [CTRL][D]  
list the file under the path

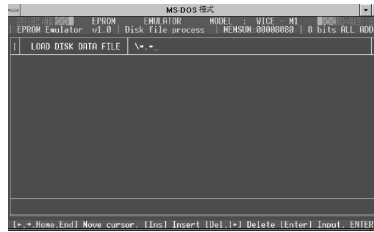


- b. Load disk data file to buffer[L]

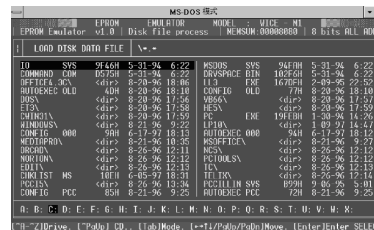
Download disk's files in PC buffer, it will list the following option for you.



Press ENTER on needed type and then appear the following chart.



Input the filename or \*.\* directly



- c. Save buffer data to disk[S]  
save buffer data to floppy or hard disk.
- d. Define macro key[CTRL][E]  
define macro key to buffer
- e. Erase macro key[CTRL][L]  
erase macro key
- f. List macro key[CTRL][T]  
list macro key and its notes
- g. Load macro key[CTRL][L]  
load macro key to buffer and download by "UNIV.key"  
automatically.
- h. Save macro key file to disk[CTRL][S]  
save macro key file to floppy or hard disk.
- i. View text file[Shift][T]  
show the text file

- #### (4) HELP

a. Help[H]

[illegible]

- provide you EPROM family device map by pressing  
[Pgup][Pgdn]

[illegible]



**(5) Process**

Process the data in buffer.

a. Dump/Edit buffer data[D]

Showing the whole buffer data which contain HEX/ASCII to edit. It will show you the binary, hexadecimal and ASCII CODE of code format.

Key in [CTRL][E] to edit HEX

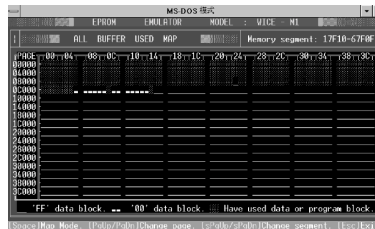
[CTRL][A] to edit ASCII

[CTRL][D] to show the data you want to examine

[ESC] back to main screen

b. Display buffer used map[U]

Show the current condition to provide users analyzing.



c. Read memory check sum[CTRL][N]

Get the CHECK SUM in buffer data

d. Buffer fill (FFH) data

Fill FFH data into the whole buffer.

e. Buffer fill (00H) data

Fill 00H data into the whole buffer

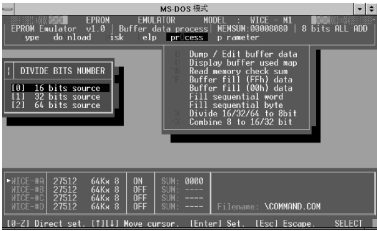
f. Fill sequential word into all

Fill sequential word into the whole buffer.

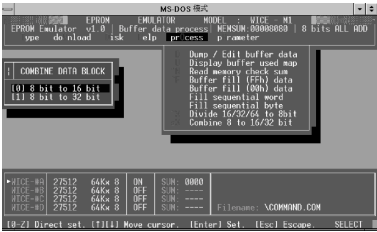
g. Fill sequential byte into all

Fill sequential byte into the whole buffer.

- h. Divide 16/32/64 to 8 bit [CTRL][X]  
Divide 16/32/64 to 8 bit



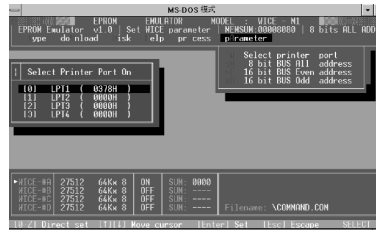
- i. Combine 8 to 16/32 bit [Shift][X]  
Combine 8 bit to 16/32



## (6)Parameter

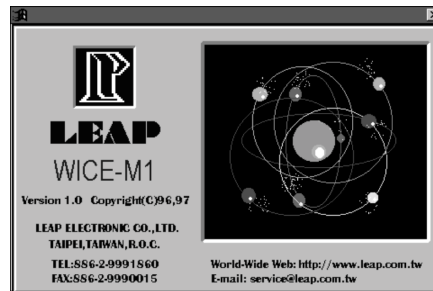
Set the parameter.

- a. Select printer port[CTRL][W]  
select printer port



- b. 8 BIT BUS All address [Shift][A]  
Shift 16 bit Even or Odd address to 8bit
- c. 16 bit BUS Even address[Shift][E]  
Transmit even data from buffer to WICE-M1
- d. 16 bit BUS Odd address[Shift][O]  
Transmit odd data from buffer to WICE-M1

#### ☛. Set Up Windows Software

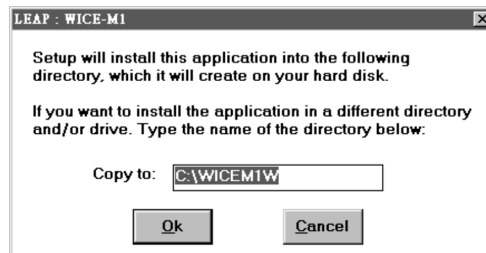


## 1. Standard Requirements

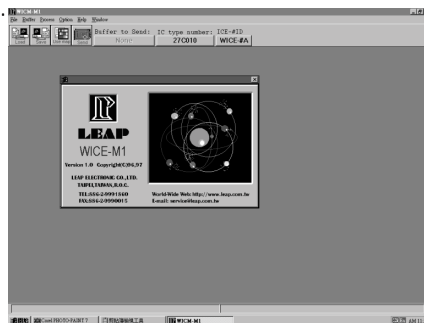
- \*IBM PC or compatible computer (above 386)
- \*5M available extend memory required
- \*Windows 3.1/95

## 2. Installation Procedures

- a. Please back up your software disk.
- b. Turn on your computer and set the Windows in, please in the "SETUP DISK" and execute the "SETUP.EXE" in order to set the WICE-M1 main program into computer.
- c. Your screen will show the dialogue to choose the set-up path, please key in the path of the file that you want to install.



- d. When you finish the set-up, it appears a new program in your Windows explorer.
- e. You can check WICE-M1 chart twice to execute the main program.



### 3.Connect WICE-M1 Hardware

Introduction:

Please follow the procedures to connect the WICE-M1 with PC.

Connection Procedure:

[A] Plug one head of cable in WICE-M1 and the other head in printer port.

[B] Turn it on and execute the WICE-M1 main program.

[C] According to JUMP on WICE-M1 to select WICE-#ID, "WICE-#A" indicate the first one, "WICE-#B" indicate the second one, and so on.

[D] Select MENU-Option-Set Up Sent Data to set the number of printer port which is going to connect with WICE-M1

[E] The main program will automatically detect the connection while you are doing[C][D], and show on Status Bar like following  
#A:ON #B:OFF #C:OFF #D:OFF

[F] \*#A\* indicate the first WICE-M1 by adjusting JUMP, \*#B\* indicate the second WICE-M1, \*#C\* and \*#D\* represent the third one and the fourth one.

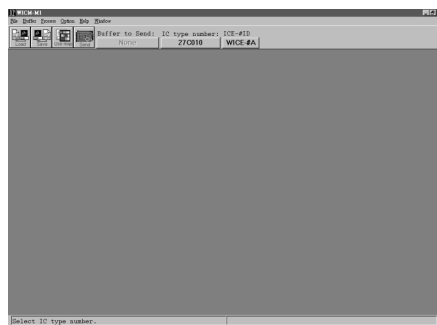
\*ON\* means it has been connected will,

\*OFF\* means it fails.

[G] If there are four "OFF" on Status Bar, it fails, please repeat above procedures to connect again.

### Windows Operation Software

#### WICE-M1 MENU



## Menu Introduction

File : functions of file process

Buffer: function of file editing

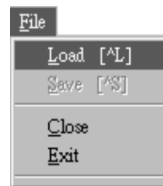
Process: hardware process

Option: working environment option

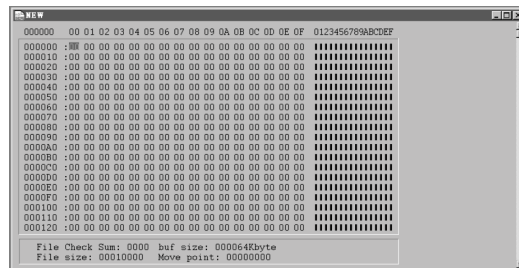
Help: on line help

Window: re-arrange windows

### 1. Introduce File



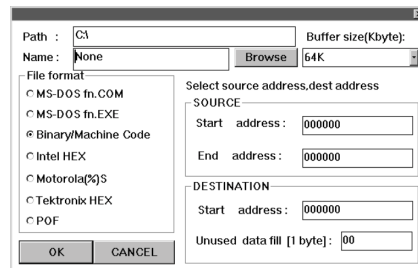
**New:** Open a new edit window to use a blank buffer



[ Use a blank buffer ]

**Load:** load in a old file

It will show you a Dialogue box like following



Path: to select load path

Name: to select load name

File format: to select file format

Buffer size: to select buffer range (max 16Mbyte)

Source: to select the start address and end address

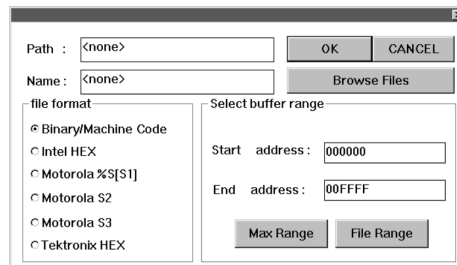
(Program will self-judge if the input correct or not)

Destination: to change data for destination start address and blank block

Browse: to select file by browse

**Save:** Save files

It will show you a Dialogue box like following.



Path: to select save path

Name: to select save name

File format: to select file format

Select buffer range: to select buffer range  
(Program will self-judge if the input  
correct or not)

Destination: to change data for destination start address  
and blank block

Browse: to select file by browse

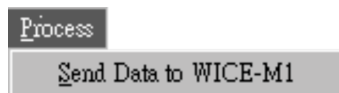
Buffer range: to fill the buffer range in the destination

File range: to use file range to fill select buffer range

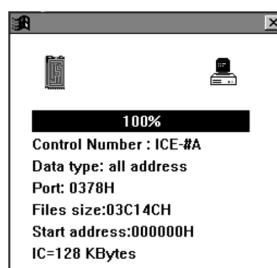
Close: close the current window (current window is  
focus window)

Exit: exit current program

## 2. Process



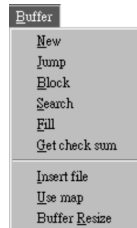
**Send data to WICE-M1:** send data to WICE-M1 to process  
the hardware. The transmission is  
showing below.



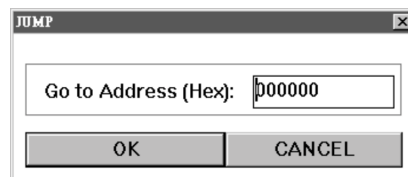
[ The picture of transmission ]



### 3. Buffer

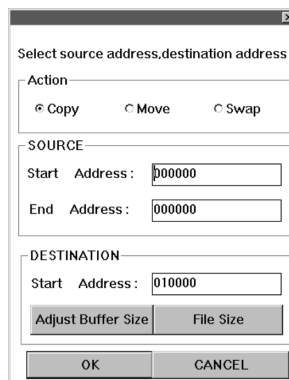


**Jump:** move the cursor to an address which you would like to go.  
Just fill the address, then you can go there quickly.



[Please key in address then OK, can move cursor quickly]

**Block:** for copy, or move, or exchange the block content.



Action: to select to block

1. copy: to copy block
2. move: to move block
3. swap: to swap two blocks

Source: to select source block.

DESTINATION: to select the destination.

Buffer range: to fill the buffer range in the destination

File range: to file the file range in the destination

[Note]: If input wrong to the above selection, the program will send message to remind you.

**Search:** search for the goal data

Style: select the reach style( use Binary or ASCII to search)

Action: to select the search start

First: to block start

Search next: to search next

Target: to the target data (ASCII or Binary)

Source range: to reach the source range

Buffer range: to fill the buffer range in the Source range

File range: to fill the file range in the Source range

**Fill:** fill in data

Fill data

☐ All Fill Bit 1   ☐ All Fill Bit 0

☒ User Defined(Byte): 00

Range

Start Address : 000000

End Address : 00FFFF

Max Range   File Range

OK   CANCEL

Fill data: to select data:

All fill bit 1

All fill bit 0

User define: to fill the user self-define.

Range: to select and fill the range

Buffer range: to fill the buffer range in the Source range

File range: to fill the file range in the Source range

**Get check sum:** get the Check Sum from the Edit.

Get Check Sum Dialog

Range

Start Address : 000000

End Address : 000000

Max Range   File Range

OK   CANCEL

Range: to select the range of calculation

Buffer range: to fill the buffer range

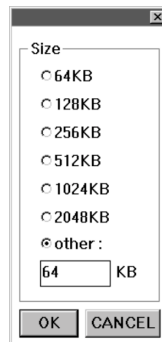
File range: to fill the file range

**Insert File:** Insert the file to the edit file.  
(only accept Binary type)

**Use Map:** use map to reflect the data of the edit file.

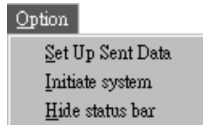


**Buffer resize:** resize the buffer

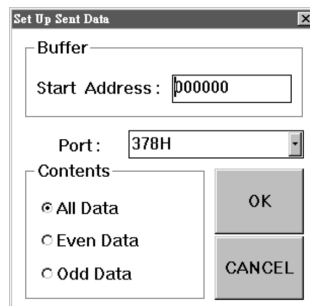


Size:select the length of new memory

#### 4. Option



**Set send data:** set the parameter while transmission.



**Start address:** set the start address of transmission data

**Port:** set the parallel number of the connection between  
PC and WICE-M1

**Send data:** set the address of transmission data

**All:** transmit all data to WICE-M1

**even:** only even address can be transmitted

**odd:** only odd address can be transmitted

**Hide status bar:** hide the status bar

#### 5. HELP

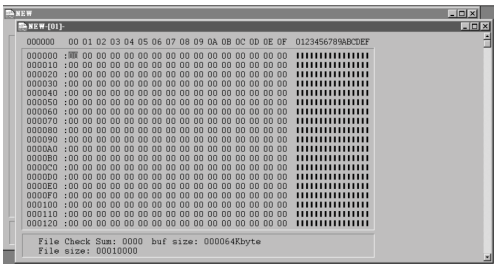


About WICE-M1: If you have any problems, select this function that your problem can be solved quickly.

## 6. Window



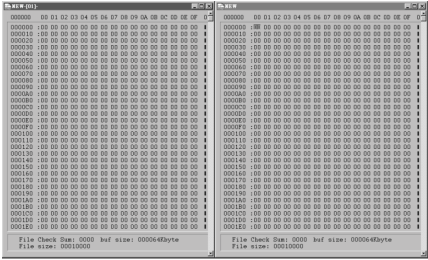
**Cascade:** to use cascade way for arranging windows



**Tile[horizontal]:** to use horizontal way for arranging windows



**Tile[vertical]:** to use vertical way for arranging windows



[Arrange windows vertically]

**Arrange Icons:** to use arrange icons for arranging windows



[Icons arrangement]

**Close All:** to close all of windows

## 7.Tools Bar



File---Load function



File---Save function



Buffer---Use Map function



Process-Send data to WICE-M1



Select the resource memory file you want to transmit



Select the number of IC EPROM (EEPROM).

**ICE-#A**

According to your JUMP on WICE-M1 to choose the type of ICE-#ID.

**A. Examples**

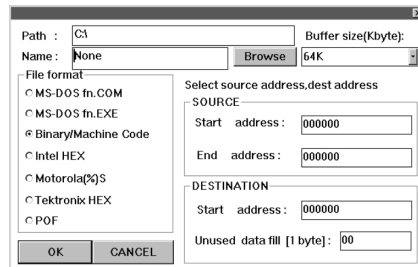
The following examples will show you how to operate WICE-M1 emulator but make sure the connection between WICE-M1 and PC main program. Please refer to preceding specification if you have connected test problem.

**A. A simple example**

This is the simplest and most useful example. There are two procedure in this example.

**1. Download file**

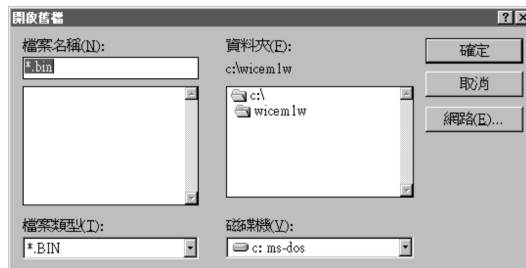
Please select MENU-File-Load to download your file in WICE-M1 like following.



[Download file dialogue box]

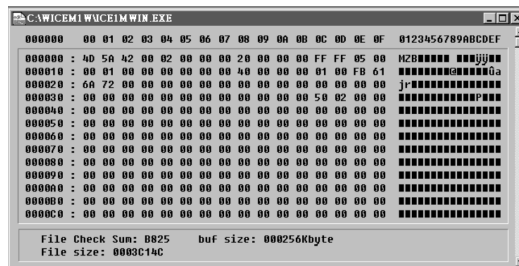


In PATH ,Please fill in the path where your file download from. In NAME, fill in the file name. You can simply click Browse to select the file if you can not remember the file name or path very exactly. It will show you the chart like following.



[select file by browsing]

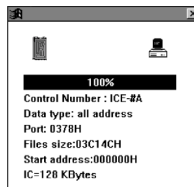
After selecting the file, please choose the file type (Seven of them are Binary type at the left side of Dialog), it will show you other parameter and then click OK. Edit Dialog will show up, you can change the data in it. Edit window is showing above.



[Edit Windows after downloading]

## 2. Transmit data to WICE-M1

Please select MENU-Process-Send-data to WICE-M1 or click the forth button on the Tools bar. Normally, it will show you transmitted picture.



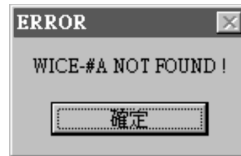
[The picture of transmission]



[The used time and check sum]

If used time and the Check sum shows up, that means the data have already transmitted to WICE-M1.

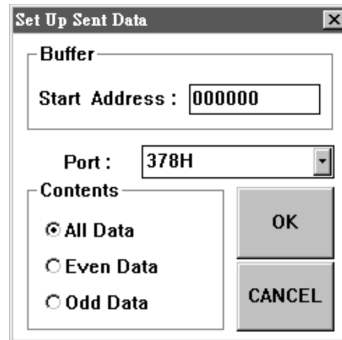
Note: If you click the transmitted button but no showing the transmitted picture, that means there are problems on connection between WICE-M1 and PC main program. It will inform you by message like following. please check your connection.



[WICE-M1 has been not found]

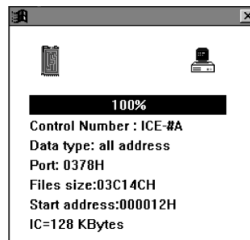
### B.Shift Start position

Normally, it will transmit data from the very first position in the file to WICE-M1 but you can select a position which you like to transmit from. It is what "Set send data" dialog doing. Please select MENU-Option-Set send data to change Start address. It is like following.



[Set send data dialog]

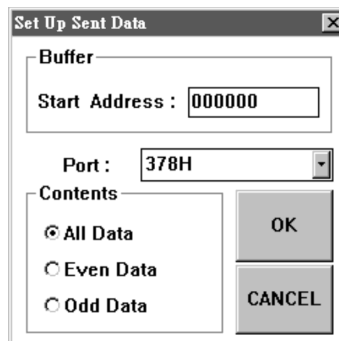
Key in the position in the Start address which you want to transmit from. No matter what file it is, it will transmit from this position to WICE-M1. Now, you can click the transmitted button to check if it is the right position you selected. It is like following.



[Please note! The start address is not zero anymore]

### C. Transmit data odd and even address

Not only changing the start position of transmission but you can choose even or odd number position to transmit data to WICE-M1. The approach is set the number in Set Up Sent Data. It is like following.



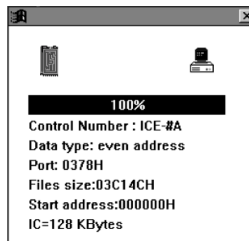
[Set send data dialog]

There are three selection in Contents. They are "All data"; "Even data"; "Odd data" which respectively mean "transmit all data in all position"; "only transmit even number data"; "only transmit odd number data", you can select it by mouse.

#### D. Transmission Message

It will show the below window after pressing the button.

You can check the correction by selecting this chart.



It shows the transmission process and the selected message.

1. Control Number: the number of WICE-M1.  
WICE-#A: indicate the first WICE-M1
2. Data type: the data type (all address, even address, odd address)
3. Port: the port number which connected with WICE-M1
4. Files size: the transmitted files size
5. Start address: the start address of the transmitted data.
6. IC: the IC size(K byte)